

## **Team Syntax Error:**

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## **History of pattern**

The Proxy pattern is a well-known design pattern in software engineering, and its origins can be traced back to the "Design Patterns: Elements of Reusable Object-Oriented Software" book, often referred to as the "Gang of Four" (GoF) book. The Proxy pattern was documented in this influential book, which was written by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides. These authors are collectively known as the Gang of Four, and they introduced and popularized many design patterns, including the Proxy pattern, in their book, which was first published in 1994.

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## **Definition**

The term "proxy" essentially signifies acting on behalf of something or someone else, often serving as a representative or stand-in. This concept directly applies to the Proxy Design Pattern.

Proxies are also called surrogates, handles, and wrappers. They are closely related in structure, but not purpose, to [Adapters](#) and [Decorators](#).

## **Types of proxies**

- **Remote proxy**
  - **Virtual proxy**
  - **Protection proxy**
  - **Smart Proxy**
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## **Usage**

Proxy pattern is used when we need to create a wrapper to cover the main object's complexity from the client.